

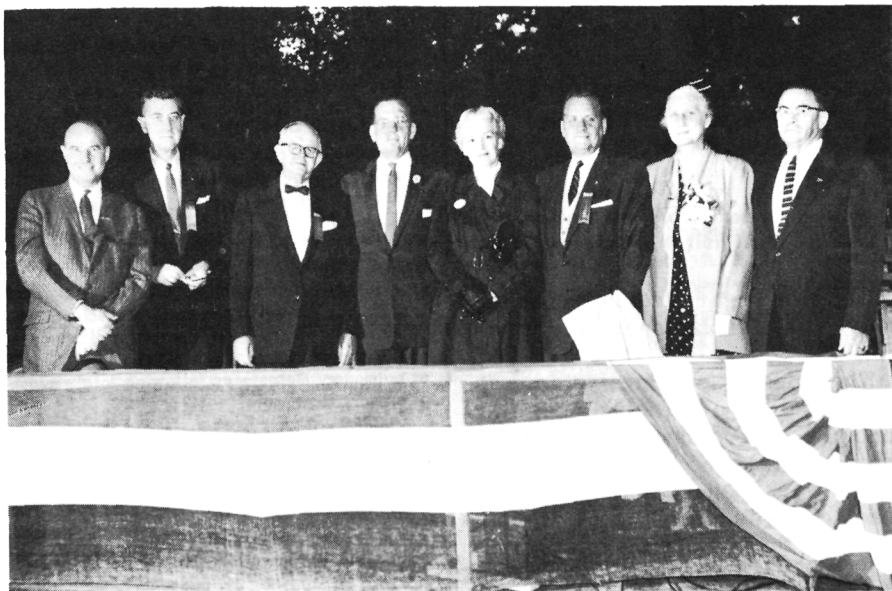


DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

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PUBLIC HEALTH SERVICE
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BETHESDA FIREHOUSE DEDICATED ON NIH SITE



Dedication ceremonies for the new Bethesda firehouse bordering NIH were attended by over 500 area residents October 5. Land for the firehouse, located at Cedar Lane and Old Georgetown Road, was donated to the Bethesda Fire Department by NIH. Participating in the ceremonies were (left to right) Senator Edward S. Northrop, of Montgomery County; Dr. James A. Shannon, Director, NIH; J. Millard Tawes, Comptroller of the State of Maryland; James W. Cummings, President of the Bethesda Fire Board; Delegate Margaret Schweinhaut, of Montgomery County; and Wilbur Baughman, Mrs. Stella Werner, and Jerry T. Williams, of the Montgomery County Council.

Noted Virologist Joins DBS Staff

Joseph L. Melnick, Ph.D., former professor of epidemiology, Yale University School of Medicine, assumed duties as Chief of the Laboratory of Viral Products, DBS, on October 8.

Dr. Melnick received his Ph.D. at Yale University in 1939 and has been a member of the Yale School of Medicine faculty since that time. One of the foremost virologists in the country, Dr. Melnick has been serving as consultant to DBS on problems of viral vaccines and tissue culture methodology since early June.

(See Photo, Page 4)

Dr. Shope To Present Dyer Lecture Nov. 5

Dr. Richard E. Shope, one of the world's outstanding virologists, will give the seventh R. E. Dyer Lecture on November 5. Dr. Shope will discuss the current outbreak of Asian influenza against a background of influenza pandemics. The title of his lecture is "Influenza: History, Epidemiology, and Speculation."

All NIH employees are invited to attend the lecture. It will be given at 8:15 p.m. in the auditorium of the Clinical Center.

Dr. Shope's research on influenza spans the past two decades and more. His early work showed swine

(See Lecture, Page 3)

DR. MASLAND NAMED NINDB ASST. DIRECTOR

Dr. Richard L. Masland, well-known neurologist and psychiatrist, is the newly appointed Assistant Director of NINDB. He was formerly professor of neurology and psychiatry and head of the neurology program at the Bowman Gray School of Medicine, Winston-Salem, N. C.

On the staff of Bowman Gray since 1947, Dr. Masland took a year's leave in 1955 to act as research director of the National Association for Retarded Children. He organized and directed a nationwide survey of research facilities and potential in mental retardation.

A native of Philadelphia, Dr. Masland received his M.D. degree at the University of Pennsylvania School of Medicine in 1935.

Dr. Masland served with the U. S. Army for three years, the greater part of that time as director of the Department of Physiology at the School of Aviation Medicine, Randolph Field, Texas. He was also a fellow in psychiatry at the Pennsylvania Institute for Mental Hygiene.

Dr. Masland is a diplomate, American Board of Neurology and Psychiatry. He was president of the American League Against Epilepsy in 1954 and of the North Carolina Neuropsychiatric Association in 1952.

DR. STEWART, NCI, RECEIVES AWARD

The Ward Burdick award, given annually for outstanding service in the field of pathology, was presented recently to Dr. Harold L. Stewart, Chief of the Pathologic Anatomy Branch and the Laboratory of Pathology, NCI. Dr. Stewart is the first government scientist to receive this award.

(See Award, Page 4)

Scurvy in Man Traced to "Missing Step"

No. 194 in a Series



Sketch depicts James Lind, British Naval Surgeon, treating seamen (1757) who have scurvy. He was the first to furnish scientific proof of the need for fresh fruit in the prevention and cure of scurvy.

Thousands of years ago Job said: "My bones are pierced in me in the night season and my sinews take no rest....My skin is black upon me and my bones are burned with heat." According to medical historians, it is quite possible that Job was suffering from a disease that plagued mankind from earliest history. That disease was scurvy.

Scurvy, which can be fatal, is a disease of vitamin C deficiency and is characterized by bleeding gums, anemia, and weakness. Although only sporadic cases of severe scurvy now appear in most of the civilized world, vitamin C deficiency is widespread.

Scientists have known for many years that vitamin C is essential to the health of our bones, blood vessels, and teeth, as well as to our general body health. But biochemists and clinicians have continued to seek a greater understanding of the relationship of vitamin C to body chemistry.

In their search, investigators were confronted for many years with a baffling question. Why, they asked, are man, monkeys, and guinea pigs the only mammals unable to manufacture vitamin C for themselves and therefore dependent upon fresh fruits and vegetables for their supply?

Probing into this mystery, Dr. J. J. Burns, Laboratory of Chemical Pharmacology, NHI, has discovered that man, monkeys, and guinea pigs are missing an enzymatic step found in other mammals that converts a

product of sugar metabolism in the body (L-gulonolactone) into vitamin C.

The missing enzyme system was uncovered by tracing similar amounts of L-gulonolactone administered to rats and guinea pigs. Previous work had established L-gulonolactone as a forerunner of vitamin C in the liver of the rat, an animal capable of manufacturing its own vitamin C.

It was observed in this experiment, however, that while the rats converted L-gulonolactone into vitamin C, the guinea pigs did not.

Further experimentation with human, rat, monkey, and guinea pig livers in the test tube corroborated these results. The complicated role vitamin C plays in maintaining physical health, however, is still not fully understood and must undergo more investigation.

The importance of vitamin C has been dramatized in the prevalence of scurvy from ancient times to World War I. Between 1556 and 1877, for example, there were 143 land epidemics of scurvy. All wars felt its blow. But the mariner suffered the ravages of this disease more than anyone else. It claimed nine-tenths of Magellan's crew, a toll that was not unique for long voyages.

The experiments at sea of a Scottish physician, James Lind (1716-1794), revealed that scurvy was a deficiency disease that could be prevented or cured by including fresh

(See Scurvy, Page 4)

Publication Preview

The following manuscripts were received by the SRB Editorial Section between August 7 and August 19.

OD

Dublin, T. D. The medical research program of the U. S. Public Health Service.

DBS

Jahnes, W. G.; Fullmer, H. M.; and Li, C. P. Free living amoebae as contaminants in monkey kidney tissue culture.

NCI

Fahey, J. L., and Perry, R. S. Blood ammonia elevation and toxicity from intravenous L-amino acid administration to dogs: The protective role of L-arginine.

Manning, M. D., and Carroll, B. E. Some epidemiological aspects of leukemia in children. Maxwell, C. R.; Peterson, D. C.; and Watlington, P. M. The formation of a ferric-glycine complex.

Menefee, M. G., and Woodside, G. L. A newly observed cytoplasmic component: The Pentalammar body.

Mustacchi, P.; Pandolfi, A.; and Bucalossi, P. Bilateral mammary cancer in Italian women.

O'Gara, R. W.; Horn, R. C., Jr.; and Enterline, H. T. Tumors of the anterior mediastinum.

Schatten, W. E. An experimental study of postoperative tumor metastases. I. Growth of pulmonary metastases following total removal of primary leg tumor.

Schatten, W. E.; Kramer, W. M.; and Thomas, L. B. Multiple cavernous hemangiomas involving veins of an upper extremity: Report of a case treated by extensive local resection.

Schatten, W. E. An experimental study of postoperative tumor metastases. II. Effects of anesthesia, operation, and cortisone administration on growth of pulmonary metastases.

NHI

Braunwald, E.; Welch, G. H., Jr.; and Morrow, A. G. The effects of acutely increased systemic resistance on the left atrial pressure pulse: A method for the clinical detection of mitral insufficiency.

Grant, R. P. Left axis deviation. Mitoma, C.; Smith, T. E.; Friedberg, F.; and Rayford, C. R. Incorporation of hydroxyproline into collagenous tissues by chick embryos.

Shore, P. A., and Olin, J. S. Identification and chemical assay of norepinephrine in brain and other tissues.

NIAID

Emmart, E. W.; Cole, R. M.; May, E. L.; and Longely, J. B. Studies on streptococcal hyaluronidase and anti-hyaluronidase. II. The localization of sites of absorption of streptococcal hyaluronidase (group C) with fluorescent antibody.

Louria, D. B. Some aspects of the absorption, distribution, and excretion of amphotericin B in man.

NIH RECORD

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Memory Demonstration Scheduled At NIH

Dr. Bruno Furst of the Memory Training Institute of Washington will lecture and give a demonstration of memory development and improvement techniques October 24 at 12:15 p.m. in the CC Auditorium. Details of a 12-week course sponsored by the Memory Institute will be given.

SCURVY Contd.

fruit in the diet. As a result of his work, the English Navy in 1795 adopted lime juice as a scurvy preventive. Lind became known as the father of nautical medicine, and the English seaman received the nickname "limey."

In spite of the growing knowledge concerning nutrition, poverty and ignorance still account for widespread "borderline" vitamin C deficiency throughout the world.

Luoto, L., and Pickens, E. G. Tissue culture of KB epithelial cells for the isolation and propagation of Polioviruses.

Piez, K. A., and Eagle, H. The free amino acid pool of human cells in tissue culture.

Webb, J. M. Studies on the determination of total nucleic acid by ultraviolet absorption methods.

NIAMD

Gladner, J. A., and Folk, J. E. Carboxypeptidase-B. II. Mode of action on protein substrates and its application for carboxyl terminal group analysis.

Schwarz, K., and Mertz, W. A note on the glucose tolerance factor (GTF), a new dietary agent.

NIDR

Arnold, F. A., Jr. The program of the National Institute of Dental Research.

NIHM

Carlson, V. R. Effect of lysergic acid diethylamide (LSD-25) on the absolute visual threshold.

Essig, C. F. Withdrawal convulsions in dogs following chronic meprobamate intoxication.

Hollister, W. G. The contributions of mental health to a modern program of secondary education.

Livingston, R. B. Central control of sensory receptors and sensory transmission systems.

McDonald, R. K.; Weiss, V. K.; Patrick, R. W.; and Evans, F. T. Morphine suppression of pitressin-induced ACTH release in man.

Quinn, O. W.; Yarrow, M. R.; Youmans, E. G.; and Blank, P. Relationships between behavioral and physiological functioning in the healthy aged.

NINDB

Klatzo, I.; Horvath, B.; and Emmart, E. W. The demonstration of myosin in the striated muscle by fluorescent antibody method.

NIH Spotlight



Hilda Holley

In a valley surrounded by snow-capped mountains in beautiful western Montana, a closely knit community of NIH employees conduct research at NIAMD's Rocky Mountain Laboratory.

The laboratory's growth from a small abandoned school building to the 10 buildings it now occupies has been witnessed with pride by Hilda Holley, secretary to the directors for 25 years.

Hilda typed her first manuscript for Rocky Mountain's late director, Dr. R. R. Parker, when she was a senior in high school. Years later, after she had graduated with honors from the University of California, Dr. Parker asked her to return to Rocky Mountain as his secretary. The beautiful location of the small lab and the challenging work convinced Hilda, and she soon became adept at organizing case reports, writing summaries, and handling the library.

In 1932 the Rocky Mountain Laboratory consisted of just one building. The Director's office also served as the glass-washing and bacteriology departments, and often housed cages of guinea pigs. There was no room for a secretary, so for the first year Hilda's office was in her rented room near the laboratory.

When the new buildings were finished, Hilda moved into the lab and assumed new responsibilities. Her varied duties now include, in addition to secretarial work, handling requests for information, distribution of laboratory reprints and films, keeping a journal of important happenings, and translating foreign cor-

respondence (except Russian--she draws the line at that!).

Hilda's background in laboratory policies and "diplomatic relations" makes it possible for her to aid in transactions with important officials and scientists throughout the world. In the absence of the directors, she draws on her knowledge and good judgment to solve problems that arise.

The staff has complete confidence in Hilda as an authority on sentence structure and grammar. Having edited so many scientific papers, she is practically an authority on many subjects and has written several science features for public information.

During the past year Hilda has substituted gardening for her former hobbies, golf, bridge, and hiking. Her pleasant home, just a few blocks from the lab, has a backyard full of flowers where she likes to relax after work. And she still enjoys sewing, reading, upholstering furniture, and traveling.

Hilda is a past president of the Hamilton Branch of the American Association of University Women and of the Hamilton Hikers' Club. She is a member of a book study club and has had articles on teaching English published in the English Journal.

Two years ago Hilda and her mother spent the winter in Los Angeles with the idea of staying in California's milder climate. In spite of offers of higher salaries in California, Hilda decided to come back to her many friends in Hamilton and the position that hasn't ceased to be a challenge.

LECTURE Contd.

influenza to be a dual infection with swine virus and influenza bacillus. Subsequent research by Dr. Shope and others showed that the 1918 influenza pandemic was caused by an influenza virus antigenically related to the swine virus.

He also described a natural cycle for swine influenza virus involving inapparent infection in earthworms which serve as a reservoir and vehicle for transmitting disease to hogs.

Dr. Shope is on the staff of the Rockefeller Institute for Medical Research. He has been a member of the PHS Technical Committee on Poliomyelitis since its inception in 1955. He is also a member of the Armed Forces Epidemiological Board and director of its Commission of Epidemiologic Survey.

JOINS DBS STAFF



Dr. Joseph L. Melnick

Commissioned Officers To Hold Dance Oct. 26

The PHS Commissioned Officers Association will hold its fall dance Saturday, October 26, in Wilson Hall. Dick Stratton and his orchestra will provide music from 9:00 p.m. to 1:00 a.m.

The dance will be held immediately after the PHS Newcomers Club reception for the Surgeon General and his staff. For further information and for reservations, contact Dr. Sidney S. Chernick, Bg. 10, Rm. 9D-06, ext. 2245.

Secretaries Invited To One-Day Workshop

NIH secretaries are invited to attend the 4th annual workshop of the Capital Chapter of the National Secretaries Association. The day-long session will be held at the Sheraton-Park Hotel November 2.

The program will include prominent speakers on communications, human relations, and office procedures, as well as discussions on current business trends and techniques. An exhibit of modern office equipment and a luncheon fashion show are also planned.

For more information and for reservations, call Mary Lou McVicker, ext. 2477.

Shorthand Books Wanted

Copies of the Anniversary Gregg Edition of Shorthand Dictation Studies by Wallace B. Bowman are needed by the shorthand class. Those willing to sell or loan their books, please contact Carolyn Evans, ext. 2454.



R & W NOTES

A large and talented cast has now started rehearsing for the Hamsters annual production of *Life at NIH, "Taken for Granted."* Among the actors who will star in the musical comedy November 19--21 are Ozzie Grabiner, Arden Flint, George Anne Johnson, Adele Wynn, June Klein, and Dr. Donald Poulton. Dr. Richard Williams is the director.

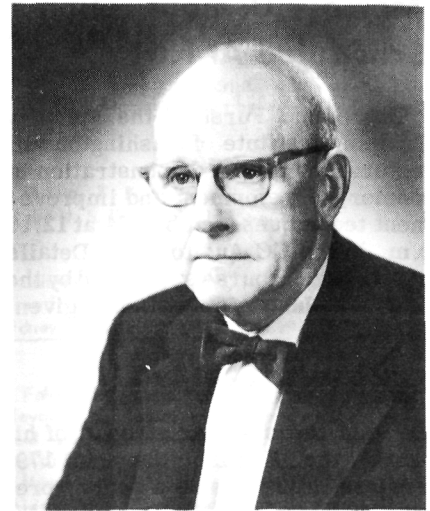
A production staff has been selected by production manager Phil Joram. Included are Bob Campbell, stage manager; Pat O'Connell, publicity; Marie Johnson, business manager; Dottie Quinn, properties; George Marsden, set designer; Bill Campbell, set construction; Bonnie Peacock, make-up; Alida McBerney, costume supervisor; Donna Williams, program supervisor; Gertrude Quinn, house manager; and Bill White, lighting technician.

The musical will be held in the Clinical Center Auditorium on November 21, 22, and 23.

UGF Drive Off To Good Start

At the end of the first week and a half of the UGF drive, 36 percent of NIH employees had contributed a total of \$23,838.98. This represents 37 percent of this year's quota.

The average contribution thus far is \$11.87. At this time last year only 29 percent of employees had contributed.



Dr. Harold L. Stewart

AWARD Contd.

The presentation was made at the joint meeting of the American Society of Clinical Pathologists and the College of American Pathologists in New Orleans, La.

A member of the NIH staff since 1939, Dr. Stewart has made many important contributions in the field of cancer research. He is a noted authority on cancer of the gastrointestinal tract.

Dr. Stewart was graduated from Jefferson Medical College, Philadelphia, and was a research fellow at Harvard Medical School. With PHS since 1937, he served in the Marine Corps in World War I and in the U. S. Army Medical Corps in World War II.



Members of the Mount Rainier-Brentwood Lions Club recently donated five FM portable radios for NIH blind patients. Club members (left to right) Richard R. Ashton, F. W. Xander, George L. Hereford, and Robert G. Manson, Jr., present the radios to NIH Gray Lady Mrs. Roger W. Ellis.